

CHAPTER 2 - Roles and Responsibilities

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CHAPTER 2 - Roles and Responsibilities

SECTION 1 - Design and Local Program

Design and Local Program (DLP)

The Program Manager of the Design and Local Program (DLP) is responsible for the development and consistent application of Caltrans' policies during the project development process. This responsibility covers all projects on State highways, regardless of funding, and projects involving state or federal programs on local facilities. The DLP Manager reports to the Deputy Director for Project Development.

DLP provides guidelines and procedural directives for carrying out the project development process. DLP reviews and monitors the process to ensure that Caltrans' goals are being accomplished, and to evaluate the need for changes. DLP is comprised of the state landscape architecture function, the local programs function, and the various project planning and design functions.

State Landscape Architecture Function

Office of State Landscape Architecture

The Chief of the Office of State Landscape Architecture is responsible for the development of Caltrans' policies, programs, procedures, and standards for all aspects of landscape architecture (highway planting, highway planting restoration, replacement planting, revegetation, vegetative erosion control), safety roadside rest areas, vista points, scenic corridors, and noise barriers. For further details on these subjects, see the *Highway Design Manual* and Chapter 29 of this manual.

Local Programs Function

Office of Local Programs, Procedures Development

The Chief of the Office of Local Programs, Procedures Development (OLPPD) is responsible for Caltrans' policy, procedures, and program administration for Federal and State Local Assistance on local agency transportation systems. OLPPD is also responsible for development of Caltrans policy for special funded programs. See the *Local Assistance Manual* and the *Procedures Manual for Special Funded Projects* for further details.

Office of Local Programs, Project Implementation

The Office of Local Programs, Project Implementation (OLPPI) is a liaison between FHWA and the local agencies for Federal local assistance programs. OLPPI is responsible for project implementation steps that can not be fully delegated to local agencies, including authorization to proceed, federal funds obligation, agreement execution, and approval of environmental documents, right of way documents, and payments from the State Controller and others. OLPPI also provides assistance to local agencies in interpreting regulation, manuals and guidelines.

Office of Local Programs, Program Management

The Office of Local Programs, Program Management (OLPPM) is responsible for distribution, management and oversight control of each specific local assistance program. OLPPM insures that the funds are expended to meet the program goals and that allocations and budget authority are not exceeded.

Project Planning and Design Functions

DLP's primary mission in its project planning and design function is to promote Statewide consistency in the project development and design process, in support of Caltrans' mission of developing transportation projects. See Section 2 for further details on how DLP accomplishes its project planning and design mission.

SECTION 2 - Project Planning and Design Function of DLP

ARTICLE 1 - General

Mission in Project Planning and Design

DLP's primary mission in project planning and design is to promote Statewide consistency in the project development and design process, in support of Caltrans' mission of developing high-quality transportation projects. DLP accomplishes this by providing the following activities and services:

Office of State Project Development Procedures and Quality Improvement

Develops and maintains project development processes, procedures, policies and agreements that are used Statewide for project planning, approval, and design and improving the quality and cost effectiveness of projects through the use of Value Analysis.

Office of State Geometric Design Standards

Develops and maintaining design standards, policies, procedures and practices that are used Statewide for highway geometric design.

Office of State Highway Drainage Design

Develops and maintains design standards, policies, procedures and practices that are used Statewide for hydraulic and drainage design.

Office of State Pavement Design and Professional Engineer Development

Provides training related to the project development and design process in an effort to enhance and improve Caltrans engineering staff's technical expertise.

Develops and maintains design standards, policies, procedures and practices that are used Statewide for project pavement structural section design.

Office of CTC Highway Appearances, Highway Encroachments and Resource Conservation

Investigates and represents Caltrans before the CTC when property owners appear to protest the taking of their property, develops and maintains policies and practices that are used statewide for highway encroachments, high-low risk utility facilities, conservation of resources and technology transfer.

Project Development Coordinators

Provides technical expertise and assistance to district engineering staff.

Relationships with Others

While DLP's responsibility for project planning and design is limited to the State Highway System, many local agencies and consultants in California utilize the manuals and policies of Caltrans for their work or when they do work on the State Highway System. Such utilization of Caltrans' manuals and policies requires DLP to maintain liaison with, and develop overall policies and procedures in coordination with, the district and headquarters offices, local agencies, FHWA, AASHTO and other state and federal agencies and organizations. In addition, DLP represents Caltrans on national committees for the Transportation Research Board (TRB), the American Association of State Highway and Transportation Officials (AASHTO), and the Western Association of State Highway and Transportation Officials (WASHTO), etc., to assure that California's interests are represented and protected in the formulation of national design policies and standards.

DLP Program Manager

The DLP Program Manager is responsible for developing and maintaining procedures, policies, practices and standards for the overall project development process. In order to maintain statewide consistency in the project development and design of projects the DLP Program Manager has been delegated responsibility for approval and/or execution of the following project planning and design documents:

- Freeway agreements (execution authority)
- Exception to policy on encroachments into access-controlled highways (delegated to Chief, Office of CTC Highway Appearances, Highway Encroachments, and Resource Conservation)
- Denominations as Controlled Access Highway
- Nonstandard cooperative agreements
- Exceptions to mandatory design standards (delegated to the Project Development Coordinators)
- Exceptions to project development policy, practices and procedures
- Exceptions to policy on hazardous waste removal during design

- Route adoption maps
- Exceptions to Policy on High and Low Risk Underground Facilities within Highway Rights of Way (delegated to Chief, Office of CTC Highway Appearances, Highway Encroachments, and Resource Conservation)
- Approval of experimental or research features

In this role the Program Manager works closely with the Environmental Program Manager, who is responsible for environmental, social, and economic aspects as they relate to the project development process.

ARTICLE 2 - Project Development Coordinator

District Liaison

To facilitate project planning and design liaison with the districts, the DLP Program Manager is assisted by Project Development Coordinators (PD Coordinators) each assigned to one or more of the districts. The primary purpose of the PD Coordinator is to facilitate the project planning process through early preliminary review, liaison and coordination. The PD Coordinator is the district's main contact with the Design and Local Program (DLP) on overall project development matters and procedures pertaining to planning, design, traffic, and environmental issues. The PD Coordinator also provides a channel through which any problem in a district can be brought to the attention of the proper party in Headquarters.

The success of this undertaking depends to a great extent on cooperation and communication between the PD Coordinator and the district. The district is encouraged to bring to the attention of the PD Coordinator, at the earliest possible time, all project development issues or project design features about which controversy or schedule delay may develop, so that these problems may be resolved in a timely manner without loss of project development effort.

Specialists from other units are called upon by the PD Coordinator as the need arises: from DLP, these may include a Geometric Reviewer or a Project Development Procedures Engineer; from other divisions, these may include a Traffic Operations Liaison Engineer, an Engineering Service Center Project Functional Manager, or an Environmental Coordinator.

Exception Approvals

PD Coordinators have been delegated approval authority by the DLP Program Manager for all exceptions to Mandatory Design Features on all State Highway projects (See PDPM Chapter 21 and Index 82.3(2) of the *Highway Design Manual*). The PD Coordinator also reviews requests for exceptions to Advisory Design Standards and requests for State-only funding in the district prior to submittal to the Programming Program (the Programming Program coordinates approval of current and budget year State-only funding requests with the Budgets Program). See Section 7 of this chapter for FHWA involvement.

Project Scope, Schedule, and Cost Changes

The PD Coordinator plays an integral role in the project scope, schedule, and cost change process (See Chapter 6). Cooperation and communication between the PD Coordinator and the district is essential when project changes are proposed. The PD Coordinator must be brought into the process at an early stage to explore the use of Value Analysis as a means for assessing alternative solutions to the problems causing project changes. Preferably, this should be done during the PD Coordinator's visit to the district, so that details can be accurately ascertained. After exploring the alternatives, the district and the PD Coordinator recommend the appropriate course of action.

ARTICLE 3 - Other Support Services

DLP Documents

DLP Office Chiefs are responsible for developing and maintaining design standards, policies, procedures, and practices. These are contained in the DLP manuals and guidelines listed in Chapter 1, Section 2, of this manual.

Project Development Guidance

The State Project Development Procedures Branch in Office of State Project Development Procedures and Quality Improvement of DLP has the following responsibilities: (1) establishing and maintaining project planning policy, (2) reviewing and approving freeway agreements, and (3) developing and maintaining policies and procedures on community relations and public hearings for transportation projects. In addition, the Project Development Branch is involved in seeking CTC approval of route matters. The Project Development Procedures Branch in DLP either prepares or helps the district prepare the following items, as appropriate :

- Requests for CTC approval of new public-road connections to freeways and expressways
- Recommendations to the CTC for route adoptions, rescissions, and redesignations
- Reports denominating freeways to controlled access highways
- Freeway and controlled access highway agreements
- Appearance information sheets, when CTC condemnation actions (Resolutions of Necessity) are required
- Issue papers, fact sheets, and special study reports on sensitive projects or issues for Caltrans management, the CTC, and the Legislature

The Cooperative Agreements Branch in DLP reviews and approves the following items, as appropriate :

- Cooperative Agreements
- Master Agreements
- Interagency Agreements

The Value Analysis (VA) Branch in DLP has the following responsibilities: (1) developing and coordinating the Annual VA Program, (2) maintaining expertise in conducting VA studies, (3) maintaining the VA consultant contract, and (4) assuring compliance with the federal requirement for VA Studies on all federally funded National Highway System projects costing \$25 million or more. The VA Branch in DLP either prepares or helps the district prepare or provides the following items, as appropriate :

- District Annual VA Program
- Statewide VA Program
- Assistance conducting VA studies
- Independent external peer reviews using VA studies
- Assistance conducting "life cycle cost analysis"
- Annual reports and VA program analysis submittals to FHWA

The Encroachments Branch in Office of CTC Highway Appearances, Highway Encroachments and Resource Conservation of DLP has the following responsibilities within the State highway right of way: (1) developing and maintaining policy and procedures on non-highway facilities within controlled access right of way, and (2) developing and maintaining policy and procedure on work around high risk and low risk utility facilities. The Encroachments Branch prepares responses to requests concerning exceptions in the following areas:

- Accommodation of utility facilities within controlled access right of way
- Accommodation of other non-highway facility encroachments
- Exceptions to the High and Low Risk Policy.

Design Guidance

Other offices and specialists within DLP have the role of establishing and maintaining standards, policies, procedures, and practices in the following areas:

- Highway geometric design features
- Pavement structural-section design elements
- Drainage design features
- Noise abatement and accessibility design elements

Technical Expertise & Assistance

DLP provides technical expertise and assistance to the districts in the following areas:

- State and federal laws, regulations, policies, standards, guidelines and practices
- Design for safety
- Development of quality, cost-effective projects
- Geometric design during project development
- Project development process
- Design of structural section and drainage facilities
- Hydraulics and hydrology
- Project cost and scope
- Procedures for uniform cost estimating and control
- Issue resolution and coordination with other headquarters functional units and the FHWA
- Second-level right of way reviews for resolutions of necessity to initiate condemnation cases
- Exceptions to mandatory and advisory design standards
- Value analysis
- Resource conservation
- Exceptions to encroachment policy and high and low risk policy
- Developing work plans for experimental features
- Stormwater

Training Academies

DLP provides professional development academies at which district and agency employees can receive instruction from experts in various transportation-related fields. The following academies are currently available:

- Project Engineer (PE) Academy
- Project Management (PM) Academy
- Senior Design Academy

Specialized Training

Specialized training is also provided. DLP staff will present this training to district management and district staff as appropriate. Such training will be implemented in the following areas, as new policies and procedures are issued :

- Project development process and design policies, standards and practices
- Highway geometric design
- Pavement structural section design
- Highway drainage design
- Value analysis

On-the-Job Training

On-the-job training (OJT) modules have also been developed by the project planning and design function of the DLP. These modules are updated periodically to incorporate the latest state-of-the-practice. The OJT modules are designed so that classes can be held at the trainee's job location and can be taught by individuals from the district or Headquarters Unit that the trainee is sourced to. A list of available OJT modules follows :

- Basic Design Policies
- Geometric Design I - Alignment and Grade
- Geometric Design II - Cross Section Elements
- Geometric Design III - Intersections At- Grade
- Geometric Design IV - Interchanges
- Highway Drainage Design I - Hydrology
- Highway Drainage Design II - Open Channels
- Highway Drainage Design III - Cross Drainage
- Highway Drainage Design IV - Roadway Drainage
- Structural Roadbed Design I - Subgrade Soils
- Structural Roadbed Design II - Pavements
- Structural Roadbed Design III - Pavement Rehabilitation

SECTION 3 - District

Coordination with Outside Entities

The districts are Caltrans' contacts with outside entities and the public. (See Figure 1 for a map of the 12 Caltrans districts.) In those instances where an outside entity initiates a project on a State highway, the district is responsible for coordinating processes with the outside entity to ensure compliance with project development procedures. (See Sections 5 and 6 of this chapter.)

District Director

District Directors have been assigned the responsibility, approval authority, and accountability for those project development decisions within their district that will lead to the timely delivery of projects - within budget. District Directors are accountable for ensuring that their district follows the policies and guidelines contained in this manual. This includes setting project goals, priorities, staffing plans, project delivery milestone dates, and capital cost budgets. Within tailored districts much of this responsibility resides with the District Director of the regional district, and is spelled out in the delegation of authority document applying to the particular district.

District Division Chief Design

The District Division Chief - Design supervises and monitors the work of the Design and related support Units. This Division Chief is the functional manager for this function, and negotiates and comes to agreement with Project Managers to provide needed services. This function does not exist in tailored districts.

District Division Chief Project Management

The District Division Chief - Project Management, also known as the Single Focal Point, supervises and monitors the work of the Project Managers. The Division Chief has overall responsibility for project delivery consistent with each project's scope, cost and schedule. This function does not exist in tailored districts.

District Division Chief Project Coordination

The District Division Chief - Project Coordination provides district coordination for the Project Managers in the regional district. This function only exists in the tailored districts.

Project Manager

A single Project Manager is to be assigned to coordinate and monitor all elements of the project development process for a specific project, including the timely delivery of the project - within budget. (See the *Project Management Procedures Manual*.)

Project Control Specialist

A Project Control specialist handles a project or group of projects. On request, the specialist consults with the Project Manager and Project Engineer to forecast project activities and milestone dates; monitor progress; and update schedules and costs as necessary. The specialist provides a service to the Project Manager on any given project.

Project Engineer

The Project Engineer is the lowest-level registered civil engineer in "responsible charge" of appropriate project development documents (PSR, Project Report, etc.) and project design. The Project Engineer is a member of the Project Development Team.

Managing a Specific Project

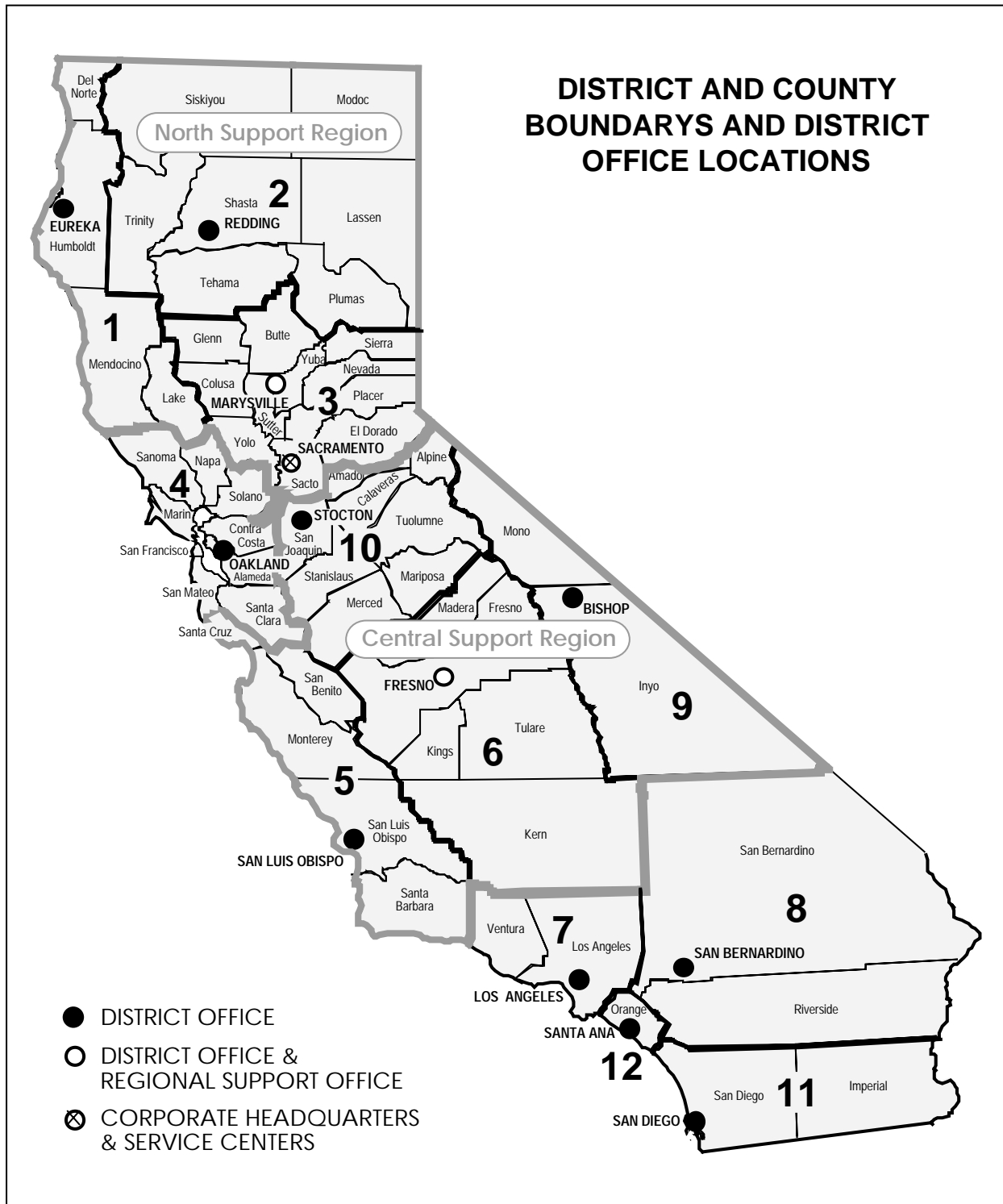
Specific projects are guided and developed by a Project Development Team, managed by a district Project Manager who is usually the Team Leader. Applicable functional managers and functional units support the Project Development Team. Section 4 of this chapter describes these roles and responsibilities in detail.

Responsibility for State Highway Improvements

All improvements to State highways are considered to be Caltrans projects. This applies even if the project will be financed by others. As owner-operator of these transportation facilities, Caltrans is responsible for operation, maintenance, and tort liability after construction. Caltrans is also responsible for providing for the authorized expansion of the system and for assessing the impact of improvements proposed by others to the existing system.

To ensure that transportation facilities are well designed, safe, and properly constructed, all project planning, design, right-of-way acquisition, and construction should be performed in accordance with Caltrans standards and practices and according to Caltrans project development process.

The district provides staffing to the normal planned program outlined in the various State programming documents. (See Section 5 of this chapter for staffing of Special Funded Projects.)



SECTION 4 - Project Management

Philosophy

Project Management has been implemented by Caltrans to enhance project control and maximize the use of limited resources. The objective is to establish realistic project goals and then to control the progress of work such that quality projects are delivered within planned budgets and schedules.

According to this philosophy, a single Project Manager is assigned to control all elements of the project development process for a specific project.

The requirements of a specific project take precedence over other requirements of the functional organization that supports it. Functional managers should consider project work as top priority in accordance with agreements established with Project Managers.

Coordination Among Project Management Personnel

Continual and close coordination must be maintained between top district management and the personnel assigned to manage the specific project: the Project Development Team (PDT), the Project Manager (PM), and the Project Engineer (PE). District management is responsible for development and timely delivery of all district projects.

Project Manager

The Project Manager is responsible for all project development steps from project initiation to close out of the construction contract. With project responsibility clearly assigned to a single PM, the project can be more successfully planned, managed, and delivered.

A PM will normally be assigned before the project initiation process begins. This also applies to projects developed by other Caltrans functional units such as Planning or Traffic.

Resources should be assigned to a project based on the Project Work Plan developed by the PM and the PDT (see Chapter 1, Section 5). The PM should have the authority to control the designated resources and schedules. The PM must use resources wisely and develop the project using accepted engineering standards and policies. The PM should exercise appropriate authority to manage the allocated project resources and schedule and is held accountable for delivering a quality product on-schedule and within-budget.

For additional information and discussion, please refer to the *Project Management Procedures Manual*.

Project Engineer

The PE is in "responsible charge" of preparation of appropriate project development documents (PSR, Project Report, etc.) and the project design effort. Manuals and policies provide standards and guidance, but the PE must develop the project by proper application of these policies and standards.

Functional Managers

The functional managers supervise the Caltrans functional units that provide technical data and plans to the PE and schedule and resource data to the PM.

District functional units may operate in the traditional manner, but the functional-unit resources required for the project must be committed to the PM to ensure that schedule obligations are fulfilled.

For more information on the "Involvement of Caltrans' Functional Units, " see Chapter 3.

SECTION 5 - Special Funded Program and Related Projects

Special Funded Projects

A Special Funded project is any project located on the State Highway System that (1) is developed and constructed using local or private funds, and (2) that has a construction cost over \$1,000,000 for work within the existing or future State highway right of way. There are four types of Special Funded projects, described below.

Local Sales Tax Measure Projects

These are State Highway System projects identified in an approved Sales Tax Measure Expenditure or Strategic Plan - funded 50% or more from local sales tax revenues - and having no funding in State programming documents. See Chapter 4, Programming for more information.

Funds are generated from a voter-approved county-wide sales tax increase for transportation. Sales tax measure projects can utilize State/Local Transportation Partnership Program (SLTPP) funds and still be considered sales tax measure projects. Typically, sales tax measure projects are highway capacity improvement projects of county-wide significance that expand the transportation system: new routes, lane additions, major interchange improvements, transit projects in shared right of way, etc.

As owner-operator responsible for providing for expansion of the State Highway System, Caltrans is responsible for performing and funding all project development work through the environmental document (ED) and project approval phase. If Caltrans cannot comply with the schedules established by the sales tax measure authority for the approval of the Project Study Report (PSR) and the environmental document approval, then the Authority may undertake this work at Authority expense - with appropriate oversight provided and funded by Caltrans.

The sales tax measure authority is responsible for funding and performing all project development, right of way, and construction following approvals of the environmental document and the project. Caltrans provides oversight of such activities at Caltrans expense. If requested by the sales tax measure authority, Caltrans may perform some of the services the Authority is responsible for - on a reimbursed basis - if Caltrans has sufficient reimbursed budget authority.

To set forth the responsibilities and funding for the various phases of project development and construction for sales tax measure projects on the State Highway System, one or more Cooperative Agreements between the State and

the sales tax authority will be required. (See the *Cooperative Agreements Manual* for more information.)

Locally Funded Projects

These are defined as local-agency sponsored, non-sales-tax-measure projects on the State Highway System - having no funding in a State programming document.

Funds may be generated from developer fees and contributions, assessment districts, local share of State gas taxes, local property taxes, local federal aid, non-highway federal programs, and SLTPP. Funds may also include sales tax measure revenue, if the total is less than 50% of the total construction cost and is included in a Strategic or Expenditure Plan, or the total is more than 50% of the total construction cost and is not included in a Strategic or Expenditure Plan.

Locally funded projects are typically highway projects of local significance, such as relatively minor interchange improvements, intersection improvements, overcrossing improvements, and signalization projects: projects that do not expand the transportation system.

As owner-operator responsible for assessing the impact of improvements on the existing State Highway System, Caltrans is responsible for the preparation of the PSR, at Caltrans expense. It is the responsibility of the local agency to provide suitable engineering data, as well as technical and financial information needed for Caltrans to prepare the PSR. The local agency may prepare and submit a draft PSR, at its own expense, to expedite the project development process. All subsequent project development, right of way, and construction activities are to be performed and funded by the local agency, with Caltrans providing oversight at Caltrans expense. If requested by the local agency, Caltrans may perform some of the services for which the local agency is responsible, on a reimbursed basis - if Caltrans has sufficient reimbursed budget authority.

To set forth the responsibilities and funding for the various phases of project development and construction, one or more Cooperative Agreements between the State and the local public agency will be required for all locally funded projects on the State Highway System. (See the *Cooperative Agreements Manual* for more information.)

Privately Funded Projects

These are defined as projects on the State Highway System that are sponsored by a private, non-public entity - having no funding in a State programming document.

Once a proposed privately funded project is identified, a decision must be made in designating the project sponsor. Caltrans strongly encourages local public agencies to sponsor privately funded projects to demonstrate community acceptance of the project and to improve coordination with other local agencies.

If a proposed privately funded project is sponsored by the local public agency, then it will be processed as a locally funded project. Caltrans will work directly with the private sponsor if a local public agency does not sponsor the privately funded project.

As owner-operator responsible for assessing the impact of improvements on the existing State Highway System, Caltrans is responsible for the preparation of the PSR at Caltrans expense. It is the responsibility of the private project sponsor to provide suitable engineering data, as well as technical and financial information needed for Caltrans to prepare the PSR. The private project sponsor may prepare and submit a draft PSR, at its own expense, to expedite the project development process. The private project sponsor is responsible for performing all subsequent project development, right of way, and construction activities, with Caltrans providing oversight at the private project sponsor's expense. If requested by the private project sponsor, Caltrans may do some of the services for which the private project sponsor is responsible, on a reimbursed basis - if Caltrans has sufficient reimbursed budget authority.

A Highway Improvement Agreement accompanied by an Escrow Agreement, if applicable, will be required for all privately funded projects. If Caltrans will do the work on a reimbursed basis, an additional Agreement is required to provide for the reimbursement.

Public Toll Road Facilities

These (not the "Privatization" Toll-Road Projects) are defined as projects authorized under Sections 531, 541, and 561 of the Streets and Highways Code. These Sections authorized the creation of specific locally funded toll road facilities in Orange County which are to become part of the State Highway System and maintained as authorized under Section 188.4 of the same Code.

As future owner-operator of the "Public Toll Road Facilities," Caltrans is responsible for providing oversight of the local toll road project development (including compliance with Caltrans design standards) through construction. If requested by the toll road authority, Caltrans may do some of the work for which the toll road authority is responsible, on a reimbursed basis - if Caltrans has sufficient reimbursed budget authority. One or more Cooperative Agreements between the State and the toll road Authority will be required to cover responsibilities and funding, including maintenance, operation, and acceptance into the State Highway System.

Complementary Programs

Listed below are definitions of other types of projects that are complementary to the Special Funded Program.

Encroachment Permit Projects

These are defined as projects on the State Highway System sponsored by either a local public entity, a local sales tax measure authority, or a private entity - with construction costs of \$1,000,000 or less - within the existing or future State Highway right of way. Such projects will follow established State policy and procedures for encroachment permits, including the preparation of the Permit Engineering Evaluation Report (PEER) or any other appropriate report, such as a Combined PSR/PR format or a Project Report. A Cooperative Agreement or a Highway Improvement Agreement will normally not be required for Encroachment Permit projects. However, certain types of Encroachment Permit projects may require some type of an Agreement. These types could include signal construction, landscaping construction, and noise barrier construction.

The State representative responsible for overseeing the project construction will be provided by the Construction Unit if construction cost exceeds \$300,000. Projects with construction costs of \$300,000 or less, may be overseen by either the Construction Unit or the Permits Unit.

All Special Funded Projects, not just those that are called "encroachment permit projects", require an encroachment permit whenever the project sponsor, its consultants, or its contractors work within the existing State highway right of way.

Jointly Funded Projects or Cooperative Projects

These are defined as projects that involve combinations of special funds (local, sales tax, or private) and funding contained in State programming documents. Roles, responsibilities, and funding must be defined in one or more Cooperative Agreements, regardless of the amount contributed by the project sponsor or Caltrans.

For projects where Caltrans is performing project development, right of way, or construction support, the project sponsor shall reimburse Caltrans for their support costs in the same proportion as the project sponsor's share of the total project capital cost - unless other equitable arrangements are specified in the Cooperative Agreement. (See the *Cooperative Agreements Manual* for more information.)

Project Development Appeal Process

The process described below is used to address disagreements between local funding sponsors and the Caltrans District or FHWA on projects proposed on the State Highway System. The appeal process enables the project sponsor a means to resolve disputes concerning the project concept, scope, or design standards.

On projects funded by others, disagreement over scope and design standards should be resolved early in the project development process and documented through a PSR and Cooperative Agreement.

When there is disagreement on project concept, scope or exceptions to mandatory and advisory standards the project sponsor may request review of the District's decision by the Caltrans Deputy Director, Project Development. A request for a review of the District's decision is prepared by the project sponsor and submitted to the District Director for use in discussions with the Deputy Director, Project Development. This request is the local sponsor's final recourse.

The request must include the background of the project, nature of the concept or scope disagreement or requested design standard exception, and the purpose and justification for the requested concept or scope change or design exception. The justification should include all pertinent reasons why the sponsor is requesting or disputing the concept or scope change or requesting the design exception, including but not limited to cost increases, schedule delays, unavailability of right of way, or environmental issues. Alternatives to the exception must be addressed and the reasons for dismissal of the alternatives must be documented. Where a concept or scope change is involved, there must be a discussion on how this change affects the project contained in the RTP and Federal TIP air quality conformity analysis.

The District Director reviews the request for completeness and accuracy and obtains any additional information which may be needed from the project sponsor. The District Director also prepares information on why the project sponsor's request was denied.

Both the project sponsor's request for review and the District Director's reasons for denial must be submitted to the Deputy Director, Project Development, prior to discussion of the issue with the Deputy Director, Project Development. The discussion, with all of the involved parties, including the project sponsor and FHWA, will consider both sides of the issue, following which the Deputy Director, Project Development, will make the final decision on the matter. The project sponsor will be informed of the decision by the District Director.

All reviews and discussions of the issue should be timely to avoid jeopardizing the project's scheduling and funding.

Cooperative Agreement Considerations

A Cooperative Agreement must be executed by the person that was authorized by resolution of the city council or the board of supervisors that approved the Agreement. To expedite project delivery, a draft Cooperative Agreement may be submitted with the PSR. A preapproved Cooperative Agreement should be used if appropriate.

A subsequent Cooperative Agreement may be needed to reimburse Caltrans for contract administration during the construction phase. Such an Agreement is usually negotiated when the PS&E is nearing completion and construction costs and special contract provisions have been more clearly defined.

Caltrans does not use Cooperative Agreements with private parties. Every effort should be made to work through the local entity rather than directly with a private party. Should this fail, the district must then enter into either a Highway Improvement Agreement

(described above under "Privately Funded Projects") or some other type of Agreement with the private party.

For additional information, refer to Chapter 16 of this manual, as well as the *Cooperative Agreement Manual*.

Local Use of Consultants

Local entities have the prerogative to use consultants for any work on a Special Funded Project that is their responsibility and that was provided for in the Cooperative Agreement. However, Caltrans will monitor and participate in the consultant selection process and must also review the work they do on State highway improvement projects. (See 1-20.80.)

Local Acquisition of Right of Way

All right of way acquisition costs that are incurred after the identification of a Special Funded Project or the passage of sales tax measures are the responsibility of the local entity. However, certain in-progress acquisitions may be completed at State expense: for instance, acquisition of hardship or protection parcels commenced prior to passage of the tax measure. If a Cooperative Agreement has been executed, hardship and protection acquisitions should be made on a reimbursement basis, if in accordance with the Agreement.

Contract Administration

For all projects, the responsibilities of advertising, awarding, and administering are viewed as a single process: whoever advertises, generally, also awards and administers.

In the traditional program, construction contract administration is a State-only process. In the Special Funded Program, advertising, contract award, and contract administration may be managed by the project sponsor or by Caltrans if reimbursement work is authorized.

The importance and complexity of most Special Funded State Highway Projects dictates the need for Caltrans to maintain a strong oversight of work on the existing and future State Highway System, regardless of how the work is to be financed. Caltrans makes use of local agency staffs and private consultants, while assuring compliance with Caltrans' construction standards and practices, and consistency in the administration of all construction contracts.

For all projects financed entirely with funds other than State and federal highway funds, responsibility for construction contract administration is borne by the local entity. In rare cases, a private sponsor may be responsible for contract administration. If the construction costs are \$1,000,000 or less, or if the work is routine utility or drainage work, the Encroachment Permit process is followed.

On sales tax measure projects, if reimbursed work is authorized, Caltrans may advertise, award, and administer the tax measure authority's construction contracts, at the discretion

of the District Director - if the Authority is willing to accept normal Caltrans processing, procedures, and scheduling - so that the project may be processed with regular STIP projects.

On other locally and privately funded projects, if reimbursed work is authorized, Caltrans should consider doing the advertisement, award, and administration on the following types of projects:

- Those involving major urban freeway or expressway construction with heavy public traffic moving through construction areas
- Where extensive night work will be required
- Those with long or unusual structures
- Where the FHWA requires State administration

Projects on conventional highways, and projects having minimum interference with traffic on the State highway, are normally administered by local entities or private sponsors. District Directors are responsible for making the final determination and for requesting reimbursed work authority during the budget process.

Reimbursing Construction Administration

The local entity or private sponsor pays for 100% of the direct and indirect advertising and administration costs for all locally or privately funded construction contracts advertised and administered by Caltrans. This includes the cost of Headquarters Office of Office Engineer of the Engineering Service Center (OOE-ESC) for advertising, opening and reviewing bids, and awarding the construction contract; the cost of Caltrans' construction engineering personnel (Structures engineers, other staff and specialty personnel); and the cost of Caltrans' consultants. Time and effort expended by the District Office Engineer (DOE) and the Resident Engineer shall be classified as oversight costs, to be paid for by Caltrans. The local entity or private sponsors should provide and pay for any of the remaining construction engineering team (construction field engineers, lab personnel and office engineers).

For jointly funded projects, the local entity or private sponsor reimburses Caltrans for the contract administration cost in the same proportion as their share of the total actual construction contract costs, unless other equitable arrangements are specified in the Cooperative Agreement.

Agreements for Construction Administration

For Special Funded Projects, Caltrans enters into a Cooperative Agreement or a Highway Improvement Agreement to cover the cost of the construction phase. The Agreement specifies responsibility for construction contract advertisement, award, administration, and construction engineering. Note that landscape projects require an agreement regardless of value. Those costing \$1 million or less are considered to be Encroachment Permit Projects and require a general agreement. Refer to Chapter 29, Section 2.

There are three ways for the local entity or private sponsor to interact with Caltrans for contract administration on State highway right of way. All require an Agreement:

- Caltrans administers the project and provides a Resident Engineer and other staff and specialty personnel under reimbursement work authority. The local entity or private sponsor provides any remaining personnel required for the construction engineering team.
- The local entity administers the project under an encroachment permit, provides the Resident Engineer and construction engineering team, and uses Caltrans' Local Agency Automated Pay System (LAAPS) to pay the contractor. This is a local entity option; however, it requires that the Resident Engineer for the local entity be trained in Caltrans' LAAPS and estimate system. Caltrans provides oversight.
- The local entity or private sponsor administers the project under an encroachment permit, provides the Resident Engineer and construction engineering team, and uses their own system of contractor payment. Caltrans provides oversight.

The Agreement for construction will normally be prepared and executed during the design stage. Sufficient time should be allowed for negotiations and reviews. Duties for the local entity or consultant providing construction contract administration are covered in the Agreement. Agreements will include, but not be limited to: detail funding and requirements for advertisement, award, administration and construction engineering, state furnished materials, materials testing, change orders, claims resolution, maintenance during and after construction, insurance, liability, bonding, advance deposits and escrow accounts, audits (if State or federal money is funding part of the cost), microfilm, and as-built plans.

Once the design plans are acceptable to the district, the local entity or private project sponsor should submit a request for an encroachment permit. To ensure that all real estate interests (right of way or utility easements) have been appropriately dealt with, a Right of Way Certification is required of the local entity or private sponsor before the granting of an encroachment permit. Prior to commencement of construction work, the construction contractor for a local entity must obtain an encroachment permit. The Agreement should discuss the determination of fees charged to the contractor. Generally, encroachment permit services should be considered as oversight. Refer to the *Encroachment Permits Manual* for further information.

All work on the State right of way is considered a Public Works Project, unless it is work performed solely to allow private encroachments onto the state highway or for utility or drainage encroachments within the State highway. Public Works Projects come under Prevailing Wage and related provisions.

Encroachment Permit Considerations

Encroachment permits are required in those instances where an outside party performs work within existing State right of way. The primary encroachment permit should not be issued to a public entity for private development work. It should be issued to the developer or contractor and the applicable inspection fees charged.

When the encroachment (or a portion) is to be later maintained by a public entity, a second permit or Maintenance Agreement is required of the public entity.

When a public entity performs contract administration, an encroachment permit is also required. Under Section 671.1 of the Streets and Highways Code, public entities are not charged fees for an encroachment permit.

For additional information, refer to the *Encroachment Permits Manual*.

Subsequent Agreements

Cooperative Agreements are entered into for any applicable maintenance and operations costs that will arise after the project has been accepted into the State Highway System, regardless of the project's construction cost. Caltrans prepares and processes any necessary Cooperative Agreements. Maintenance Agreements are also entered into or amended as necessary to cover any changes in maintenance responsibilities.

Review, Coordination and Oversight

Although local entities and private entities are responsible for performing the work on Special Funded projects, Caltrans staff will still be involved in performing various activities, which may include the following: design advise or comment, environmental review or studies - issuance of notices - right of way processing - reviews and approvals (particularly securing of federal approvals) - consultation from Maintenance and Operations - and furnishing project consultants with Caltrans' standards and processes.

Early Relationship

It is important to establish a cooperative and communicative relationship with the local entity or developer at the earliest possible point in the development process. A district representative should be assigned to work with the local entity or developer. This representative will serve as both the Special Funded Project Coordinator and the Caltrans Project Manager.

A processing assessment will be made, an initial meeting will be held, and processing will be started, as appropriate, per the *Procedure Manual for Special Funded State*

Highway Projects (for Encroachment Permit projects see Chapter 9, Article 12). Processing as a Combined PSR/PR may be agreed to at this time, if appropriate (see Chapter 9, Article 11).

Single Liaison

This district representative provides a single contact point through which the outside entity will work. There should however, be flexibility to provide for direct interaction with area project development personnel as appropriate. The single contact point would also act as an ombudsman for outside entity problems or complaints.

To prevent a breakdown in communication, the assigned district representative should contact the outside entity whenever a significant lapse in communication has occurred. Each contact should be documented and copies sent to the various involved parties.

Focal Points

The following project development items require review and coordination:

- Concept approval will be established via approval of a PSR, a Combined PSR/PR, or a PEER. Chapter 9 of this manual identifies the circumstances that dictate the preparation, reviews, and approvals required.
- The PSR should make clear recommendations for staffing responsibilities that are to be in effect for a period extending from the execution of the Cooperative Agreement (after approval of the PSR) until the approval of the environmental document. Staffing responsibilities for the design, right of way, and construction phases should be covered in the PSR in general terms.
- Earlier confirmation (by approval of a PSR - New Connection) is required if a new connection to an expressway is proposed. See Chapter 9, Article 2, and Chapter 27, for required reviews and approvals.
- The goal on locally funded interchange projects is to determine the design concept in considerable detail. The concept should be reviewed by the district's Headquarters Geometric Reviewer. No firm commitments can be made to local entities until Caltrans' conceptual approval is given, and FHWA approval if on the Interstate system.
- Although the design concepts contained in a PSR contain considerable detail, they are still conceptual in nature and subject to further revision later in the project development process and therefore should not be used to identify final right of way requirements. If it is likely that the maps attached to a PSR will become the basis for identifying the right of way line, such as could occur to allow a development to proceed, all studies necessary to identify adequate right of way requirements need to be completed prior to PSR approval.

- Clear recommendations on staffing responsibilities for subsequent design, right of way activities, and construction should be included in the Project Report and any Draft Project Report.
- The time schedule should be realistic. Both the local entity and the funding sponsor should be sent written confirmation of the scheduling.
- Project Development Team meeting minutes should be taken. Copies should be sent to the involved parties.
- The district must track progress. It must inform the local entity, funding sponsor, and consultants when schedule slippage occurs and a revised schedule should be prepared and agreed upon.
- A typical section should be developed and approved early in the development process by the project proponent and Caltrans. Bridge widths should also be shown and agreed upon.
- Geometric features should be carefully studied. Formal approval must be obtained for all exceptions to design standards. Documentation is an extremely important resource for later questions by either party.
- All design plans should be carefully reviewed by the district for Caltrans requirements and standards. The Caltrans Project Manager will coordinate all reviews by other Caltrans units. To optimize communication, local agencies and consultants should use the Caltrans Project Manager as their liaison to Caltrans personnel.
- Prior to beginning detailed design, a General Plan for each bridge should be submitted to the district and the Office of Structure Design for review and comment.
- Prior to preparation for advertising, the PS&E must be checked by Caltrans district personnel for adequacy and compliance with standards and approved exceptions. Caltrans Standard Specifications, Standard Special Provisions, and test methods should be used. (It is acceptable for locally administered projects to use local specifications and standard plans.)

SECTION 6 - Lead Agency

General

Since the term "Lead Agency" is used by a variety of different programs, its definition must be clarified within the context of the associated program. For example, a Lead Agency is used with respect to implementation of the Surface Mining and Reclamation Act (SMARA) as well as with respect to the Construction Contract Claims process for Special Funded Projects. For project development purposes, reference to a Lead Agency is made with respect to its role in fulfilling the requirements of the California Environmental Quality Act (CEQA):

- If the project will be carried out by a public agency, that agency must be the Lead Agency.
- For private projects, the Lead Agency must be the public agency with the greatest responsibility for approving the project as a whole - normally, the agency with general governmental powers, as opposed to one with a single or limited purpose.
- If more than one public agency qualifies, the Lead Agency is the one to act first on the project.
- If two or more have substantial claim, they may designate the lead by agreement.

In federal environmental terminology, the lead agencies are the agencies having the primary responsibility for preparing an Environmental Impact Statement, one of which must be a federal agency. Normally Caltrans and FHWA are joint lead agencies under the National Environmental Policy Act (NEPA).

Caltrans as Lead Agency for CEQA

Caltrans will normally be the Lead Agency for CEQA for State highway projects sponsored by Caltrans, as well as for locally sponsored projects that involve new mainline development, new mainline capacity, or relief of existing highway traffic safety or congestion problems. This would include projects like mainline improvements, new interchanges, conversion of expressways to freeways, adding new lanes, traffic relief improvements such as auxiliary lanes and ramp revisions that are not related to local improvements. Caltrans may also be the Lead Agency if several CEQA documents are prepared by different local agencies to cover individual segments of a complicated project.

The general rule is that only one public agency will prepare an environmental document for a project.

Caltrans is responsible for the adequacy and objectivity of the Draft environmental document, which must reflect the independent judgment of Caltrans. However, if another agency is the project sponsor, Caltrans can use information prepared by the sponsor. The local entity may draft the environmental document, but Caltrans must still review and analyze the content of the draft. In addition, Caltrans will usually handle all required public notices.

Local Agency as Lead Agency for CEQA

For other locally sponsored projects, the local entity may be the Lead Agency for CEQA. Examples of these include: a local road overcrossing of a freeway; new construction or substantial upgrading of a major element of the local road system, where a portion of the project involves a freeway interchange or State highway widening; work on the State highway that was required to improve circulation and access in order to mitigate the impacts of a large local development proposal.

Caltrans must determine that the Final environmental document (FED) has been completed in compliance with CEQA; certify that it was presented to the Caltrans decision maker; and certify that the decision maker reviewed and considered the information contained in the FED prior to approving the project. All other environmental work and public involvement activities can be done by the sponsor or by Caltrans (within the limits of available resources and under a reimbursable contract for services).

Caltrans as Lead State Agency for NEPA

When the local entity is Lead Agency for CEQA, and there is any FHWA involvement, Caltrans will be the lead State agency for NEPA compliance. This means that Caltrans and FHWA must be involved at the early stages in determining the requirements for environmental compliance under federal law.

If there are significant impacts involved in the portion of the project under FHWA decision authority, then (1) a Draft Environmental Impact Statement (DEIS) must be prepared and approved for circulation by Caltrans and FHWA and (2) a Final Environmental Impact Statement (FEIS) must be prepared and approved by Caltrans and FHWA. If FHWA is the sole federal agency involved in a local entity or private development project that is predominantly a non-federal action, it will not accept the CEQA document for purposes of NEPA. Consequently, a concurrent or subsequent NEPA document usually needs to be prepared that solely addresses the highway-related impacts.

If there are no significant effects involved within the FHWA scope of decision authority, and if the proposed work is not a Categorical Exclusion under FHWA regulations, then an Environmental Assessment needs to be prepared that addresses highway-related impacts. This assessment must be made available to the public. Following these events, FHWA can issue a Finding of No Significant Impact (FONSI). This can be done concurrently with CEQA processing.

SECTION 7 - Federal Government

ARTICLE 1 - Federal Highway Administration

Involvement

The Federal Highway Administration (FHWA) is the federal agency most typically involved with transportation projects or actions taken by Caltrans on the State Highway System and as such has the authority and responsibility for implementing and monitoring federal laws, regulations and executive orders. When a project (or action) involves federal funding or is on a federal system, FHWA should become involved pursuant to the stewardship and delegation of authority agreements signed with Caltrans. When a federal permit is required, FHWA usually becomes involved in the process as either the lead federal agency or as a co-lead agency.

Stewardship and Delegation of Authority

Stewardship is the process by which federal program responsibility and accountability are delegated to state transportation agencies to act as stewards over those federal functions. Caltrans has sought and accepted stewardship of FHWA responsibilities to the maximum delegation of authority level allowable.

Passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) significantly changed the transportation business and allowed FHWA to exempt Caltrans from FHWA review and oversight for many activities on federal-aid projects and delegate additional authority to the states for approval and administration of the Federal-aid Transportation Program. To address the major changes brought about by ISTEA, FHWA and Caltrans executed three Letters of Agreement (Stewardship Agreements). The Stewardship Agreements detailed Caltrans' acceptance of the maximum degree of authority available to act as a steward for project review, oversight and administration in development of federal-aid highway projects. Caltrans, by accepting the additional responsibilities on projects for which authority has been delegated, assures that the exempt projects are developed and administered to meet federally required procedures and standards.

Certification Acceptance (CA)

Caltrans requested and was granted through FHWA certification, the maximum authority permitted by federal highway laws and regulations. This "Certification Acceptance" minimized FHWA involvement in project activities and other actions; thus, vesting Caltrans with the responsibility for complying with federal statutes and Executive Orders.

ISTEA modified the federal-aid program to which CA applied, however, CA remains in effect. The three Stewardship Agreements superseded the CA applicability for some of the projects that were previously under CA and thus reduced the extent of projects that

are under CA. CA applies to new and reconstruction projects (see definition under “Type of Work” later in this section) on the Non-Interstate National Highway System where the construction cost is \$1 million or more. The differences in delegation between CA projects and exempt projects are shown in Figure 4.

Program Reviews and Product Evaluationst

FHWA monitors Caltrans' Stewardship responsibilities through annual program reviews and product evaluations to ensure compliance with applicable federal requirements. These reviews are accomplished under the Program Review/Product Evaluation (PR/PE) Program and are similar to those performed under certification acceptance. Specific programs and products are considered for review at intervals of four years or more.

Noncompliance with federal requirements risks the loss of delegations and possibly federal funds. The methods and procedures Caltrans follows on exempt and CA projects on the State highway system to assure compliance with State and federal requirements are included in this manual and in the following Caltrans manuals and documents: *Highway Design Manual*; *Traffic Manual*; *Construction Manual*; *Bridge Construction Records and Procedures Manual*; *Standard Specifications* and *Standard Plans*. Methods and procedures for projects under the jurisdiction of a county, city, or other local public agency are included in the *Local Programs Manual*. Methods and procedures for any State highway project covered by CA, if the project is administered by a local agency are included in this manual and the *Local Programs Manual*. Revisions to these manuals and new issuance of specifications and standard plans are made as necessary and are submitted to FHWA.

Delegation Withheld

FHWA retained authority and withheld delegation of the following Title 23 United States Code (USC) activities.

- Certain Interstate system projects (as described in following pages)
- Changes in connection points to the Interstate System (See Chapter 27, Article 5)
- Exceptions to the 4.9 m vertical clearance on the 42 000 km Priority Network (See Chapter 21, Section 2, and Appendix BB)
- Special project features on the National Highway System (as described in following pages)

FHWA delegation of authority does not apply to non-Title 23 USC activities (environmental, right of way, civil rights, etc.).

FHWA Project Oversight

The FHWA should be actively involved as a partner in the environmental process and in determining which design features affect the environment for all federally funded projects. This partnership should begin prior to environmental activities and extend through FHWA's approval of the appropriate environmental documentation. The FHWA also has responsibility for all non-Title 23 USC activities (i.e. National Environmental Policy Act, Uniform Relocation Act, etc.) for all federally funded projects; therefore, FHWA involvement should begin as early in the project development process as possible.

The degree of FHWA review and oversight for a specific project should be established as soon as possible. At the time of project initiation, Caltrans and/or the transportation project sponsor must decide whether or not they wish to preserve the option to federally fund a project. Once the option to preserve federal funding has been selected and federal involvement has been determined, the project will then, from that point on, be subject to all aspects of federal involvement as detailed in the stewardship agreements.

Early FHWA involvement is important where project alternatives or costs are dependent on exceptions to mandatory design standards, or where a change in access is an issue. Early involvement helps to avoid project delays. Certain projects are exempt from FHWA oversight, see Figure 2 . However, if a project is exempt from FHWA oversight, it does not preclude requests to FHWA for technical assistance.

Four classifications of projects have been established to identify the responsibilities on federally-funded transportation projects and are explained as follows. If no federal funds are used, see Figure 3 for FHWA involvement.

Non-National Highway System (NHS) Projects

These projects are "Exempt" from federal oversight. Caltrans has full responsibility for the development and implementation of non-NHS projects. FHWA has delegated Caltrans the responsibility for insuring compliance with federal (except for non-Title 23 activities) requirements regarding design and construction of these projects.

NHS Projects (Except for Certain Interstate System Projects)

These may either be federally "Exempt" or CA projects (See Determining the Level of FHWA Project Oversight below for details.). Caltrans assumes full responsibility for the development and implementation of these projects (except for non-Title 23 activities).

Interstate System Projects

On a project-by-project basis, Caltrans and the FHWA will cooperatively develop Interstate System projects with a construction cost of \$1 million or more that are either New Construction or Reconstruction projects. By being involved on a project-by-project basis, FHWA has the responsibility to ensure compliance with all federal requirements.

Interstate Completion (IC) Projects

Caltrans and FHWA cooperatively develop IC projects on a project-by-project basis.

Determining the Level of FHWA Project Oversight

Figures 2, 3 and 4 provide assistance in determining the extent of FHWA oversight on a specific project. For each of the various federal funding sources (see Chapter 4, Article 4), the degree of review and oversight by FHWA on a specific project will be determined by the following factors.

Highway System

The District Program Management Unit or the FHWA Transportation Engineer, through the FHWA Planning Section, should be able to provide highway system information (NHS or not; NHS Non-Interstate or NHS Interstate). See Chapter 1, Section 4, Article 2.

Estimated Project Construction Cost

The estimated construction cost for the project (\$1 million or more, or less than \$1 million) should be established, as soon as possible, to determine the proper degree of FHWA involvement and oversight. Unless there is a major change in the estimated construction cost, the initial determination will continue throughout the project development process.

Type of Work (New Construction, Reconstruction or 3R)

New Construction

"New Construction" is defined as a new transportation facility that did not previously exist in the corridor or as the addition of an interchange.

Reconstruction

- Addition of a mainline through lane (except climbing and auxiliary lanes)
- Significant change in horizontal and/or vertical alignment
- Reconstruction of an interchange by adding moves or relocating ramps
- Replacement of an entire bridge or the major parts of an existing bridge (in such a manner that it is effectively a new bridge) on new vertical or horizontal alignment

- Seismic retrofit projects for the following:
 - 1) Major or unusual structures [major or unusual structures are defined by *Federal Aid Program Guide* (FAPG) G 6012.1] or
 - 2) Construction costs in excess of \$5 million per structure
- Major modifications to Traffic Management Centers

Resurfacing, Restoration and Rehabilitation (3 R) Projects

All other work that does not fall under the definition of reconstruction and is not classified as new construction is considered to be a 3R type project. Such projects include but are not limited to:

- Pavement and structure rehabilitation projects
- Operational improvement projects such as signing, striping, changeable message signs, signalization, channelization, ramp metering (including widening for HOV bypass lanes or storage), truck climbing and auxiliary lanes, and minor widening to accommodate turning movements
- Safety improvement projects such as highway lighting, installation or upgrade of guardrail or median barrier, shoulder widenings, and bridge rail upgrades or shoulder widenings.
- Environmental mitigation projects such as landscaping and noise barriers
- Storm damage and emergency repair projects

Special Project Features

(Tunnels; Major or Unusual Bridges, Hydraulic Structures, or Geotechnical Features)

Note: See *Federal Aid Program Guide* (FAPG) G 6012.1 for the definition of a major or unusual structure.

For New Construction or Reconstruction Projects on the NHS:

- All preliminary plans for major and unusual structures will be forwarded to FHWA for review and approval; and
- Structures costing greater than \$10 million will be required to fulfill alternate design requirements.

For CA Projects on the NHS:

- On a project-by-project basis, FHWA may request either an informal involvement or partial to full involvement in the project due to the uniqueness of the structure involved.

ARTICLE 2 - Other Federal Agencies

Authority

Federal agencies have approval or permit authority over activities on federal lands and over certain resources (i.e. air and water quality, wildlife, navigable waters, etc.) when federal actions are undertaken. Federal laws, regulations and Executive Orders may have a bearing on a specific transportation project and may require approvals, permits or communication with federal agencies other than FHWA. See Figure 5 to determine which federal agencies may need to be involved due to the location, resources which are affected, or the activities that are involved in the project.

NEPA Compliance

All federal actions require compliance with the National Environmental Policy Act (NEPA). When FHWA is involved, other permitting or approving federal agencies will normally accept FHWA's NEPA determination. When FHWA is not involved in a project that requires federal action, the permitting or approving federal agency must comply with NEPA. Caltrans may be asked to prepare the Draft NEPA document. See the *Environmental Handbook* for details.

MOU Integrating the NEPA and Section 404 Processes

The U.S. Department of Transportation, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency have adopted as policy (1) procedures to improve interagency coordination and (2) procedures to integrate the NEPA and the Clean Water Act, Section 404 processes. A Memorandum of Understanding (MOU) was signed to implement those procedures on transportation projects in California (as well as in Arizona and Nevada).

The MOU applies to all projects needing both FHWA/Federal Transit Administration (FTA) action under NEPA and a U.S. Army Corps of Engineers individual permit under Section 404 of the Clean Water Act. The MOU is limited to issues pertaining to waters of the United States and associated sensitive species. Nothing in the MOU or its Appendices is intended to diminish, modify, or otherwise affect the statutory or regulatory authorities of the agencies involved.

The signatories to the MOU are committed to integrating NEPA and Section 404 of the Clean Water Act in the transportation planning, programming and implementation stages of a project. They are committed to ensuring the earliest possible consideration of environmental concerns pertaining to waters of the U.S., including wetlands, at each of

these three stages and place a high priority on the avoidance of adverse impacts to waters of the U.S. and associated sensitive species, including threatened and endangered species. Whenever avoidance of waters of the U.S. is not practicable, minimization of impacts must be achieved, and unavoidable impacts must be mitigated to the extent reasonable and practicable.

The MOU signatories have integrated the compliance process for the Section 404 (b) (1) Guidelines with the compliance process for NEPA to improve interagency cooperation and consultation at all levels of government throughout the process. Contact the District Environmental Unit if further information is needed.

FIGURE 2 - Flowchart for Determining FHWA Involvement and Oversight on a Project

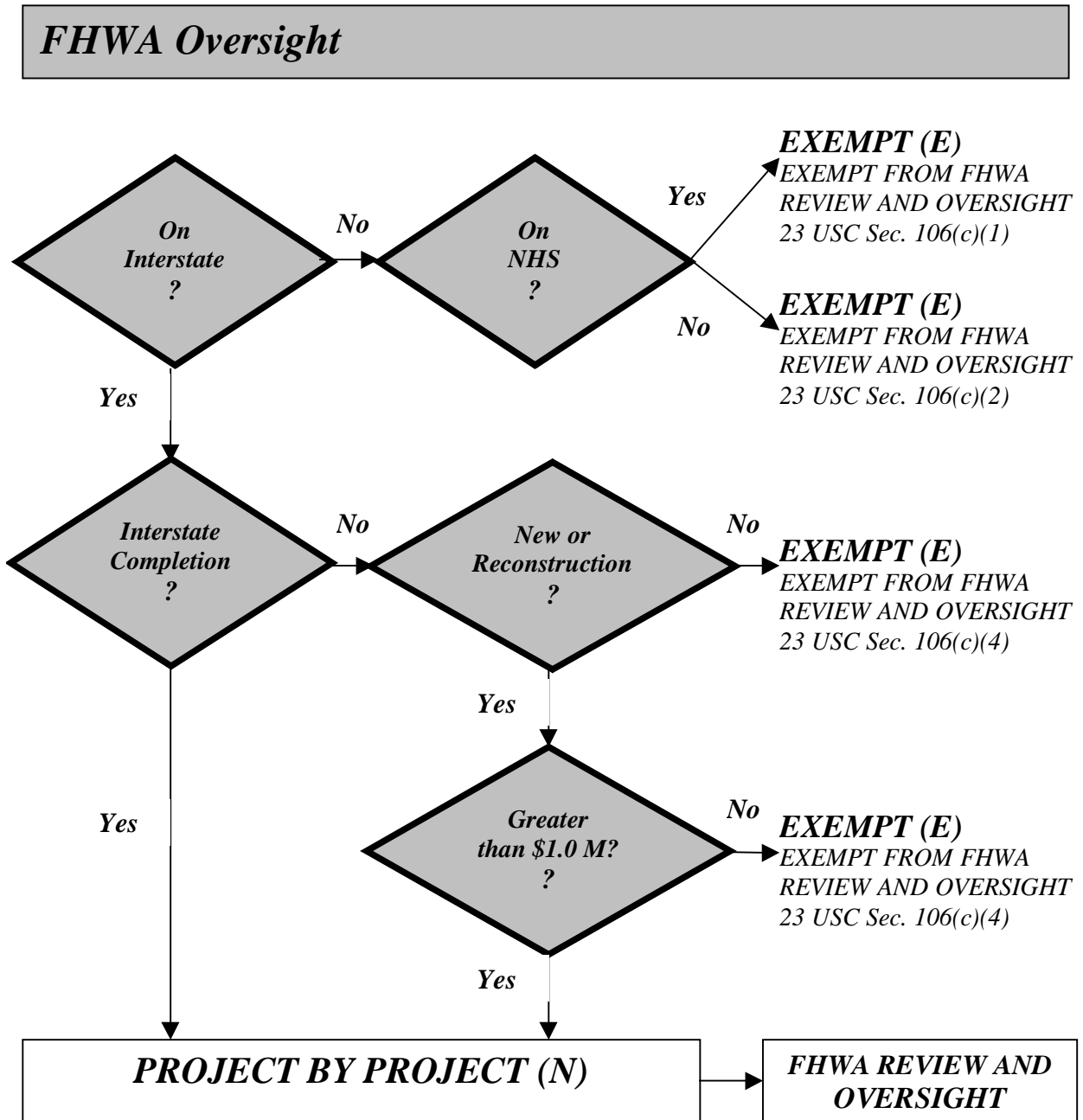


FIGURE 3 - FHWA Involvement in Projects and Actions on the NHS that are Non-Federally Funded

	INTERSTATE PROJECTS*	NON-INTERSTATE PROJECTS
CHANGE IN ACCESS CONTROL <ul style="list-style-type: none"> • New connection to mainline freeway lanes • Addition of entrance or exit ramps that complete basic existing interchanges • Major reconstruction where existing interchanges are being modified and/or dislocated ramps are being added or deleted • Removal of existing connection points 	- FHWA Concept and NEPA approval required.	NO FEDERAL INVOLVEMENT
DESIGN EXCEPTIONS	NO FEDERAL INVOLVEMENT	
42 000 km PRIORITY NETWORK (vertical clearance)	- FHWA approval required	Non Applicable
RIGHT OF WAY where federal funds were used to acquire the right of way and/or for construction	- FHWA approval required for: <ul style="list-style-type: none"> • Relinquishment of right of way - FHWA and NEPA approval required for: <ul style="list-style-type: none"> • Disposal of right of way • Airspace Agreements • Non highway use of right of way • Occupancy of right of way • Disposal of Access Control 	

* Processed as an EXEMPT project under stewardship (See Figure 4) except that FHWA involvement on Special Project Features, Experimental Work Plans, the Buy American Provisions and a Federal Fund Request are not required.

FIGURE 4 - FHWA Involvement in Federally Funded Projects

Action, Activity or Task	Exempt	Project by Project
Project Initiation Document	*	X
Special Project Features	X	X
Interstate Access Control Change	X	X
42 000 km Priority Network (vertical clearance)	X	X
Exceptions to Mandatory Design Standards		X
Mandatory Material or Disposal Site [See HDM Topic 111]		X
NEPA Document (CE, EA/FONSI, EIS/ROD)	X	X
Project Approval Document	*	X
Experimental Work Plan [See <i>Construction Manual</i> , Section 2-04]	X	X
Proprietary Items [See HDM Index 602.1(6)]		X
Buy America Provision [See <i>Construction Manual</i> , Section 2-06]	X	X
Federal Requirements Relating to Materials (State-Furnished Material, Guaranty/Warranty, etc.) [See 23 CFR 635, Subpart D]		X
PS&E and Transmittal Letter		X
Railroad Agreements		X
Right of Way and Utility Certification		X
Federal Fund Request [FNM-76 Form]	X	X
Addendum to PS&E		X
Concurrence in Award		X
Construction Inspections		X
Contract Change Orders and Time Extensions		X
Claims or Granting Non-working Days (Director Days)		X
Final Acceptance		X

X = FHWA Involvement

* Copies of the draft and/or final version of the project initiation document and/or project approval document should be furnished upon request to the FHWA Transportation Engineer. The FHWA Transportation Engineer should be consulted as early in the project development process as possible for all non-Title 23 USC activities (i.e.: NEPA, right of way, civil rights, etc.).

FIGURE 5 - Federal Statutes, Regulations and Executive Orders That May Affect Transportation Projects*

Resource, Geographic Area, or Activity	Other Federal Agencies (Besides FHWA) Potentially Involved	Federal Statute, Regulation or Executive Order
Air	U.S. Environmental Protection Agency (EPA)	Clean Air Act (42 USC 1857 et seq) Clean Air Act Amendments of 1990 (42 USC 7401 et seq) Code of Federal Regulations: Review of New Sources and Modifications, 40 CFR 51.18; Emission Offset Interpretative Ruling, 40 CFR Part 51, Appendix S; Prevention of Significant Deterioration, 40 CFR 51.24
Fish and Wildlife Habitat	U.S. Fish and Wildlife Service; U.S. Forest Service; National Park Service; National Marine Fisheries Service	Endangered Species Act (Section 7)
Water	U.S. Army Corps of Engineers; U.S. Environmental Protection Agency (EPA); U.S. Bureau of Reclamation; U.S. Fish and Wildlife Service; National Marine Fisheries Service	Federal Clean Water Act (Section 404) Regulations Concerning the National Pollutant Discharge Elimination System (40 CFR)
Navigable Waters	U.S. Army Corps of Engineers; U.S. Coast Guard	Rivers & Harbor Act
Federal Lands	U.S. Forest Service; U.S. Bureau of Land Management; National Parks Service	
Historic Properties	Advisory Council on Historic Preservation	National Historic Preservation Act (Section 106)
Coastal Zone	U.S. Army Corps of Engineers; U.S. Fish and Wildlife Service; National Oceanic and Atmospheric Administration	
Wild and Scenic Rivers	National Parks Service	Code of Federal Regulations: 36 CFR 297; 43 CFR 8350
Wetlands	U.S. Army Corps of Engineers; U.S. Environmental Protection Agency (EPA)	Executive Order 11990 (Protection of Wetlands)
Floodplains	Federal Emergency Management Agency	Executive Order 11198 (Floodplains Management)
Hazardous Waste	U.S. Environmental Protection Agency (EPA)	Code of Federal Regulations (Title 40 CFR Part 261)
Dredging	U.S. Army Corps of Engineers; U.S. Coast Guard	
Airport Airspace	Federal Aviation Administration	Federal Aviation Regulations, Part 77
Farmland	U.S. Soil Conservation Service	Farmland Protection Policy Act

* Note that this Figure is not intended to be all inclusive.

SECTION 8 - Use of Consultants

General

As authorized by Section 14131, 19130, and 14101 of the Government Code, Caltrans uses consultants for some professional and technical services, such as architectural, landscape architectural, engineering, environmental, land surveying and material testing. Professional service contracts are awarded on the basis of qualification and negotiated costs, while some of the technical service consultants are evaluated on the basis of qualification and awarded on the basis of the lowest bid from those that meet the minimum qualification. Refer to the *A&E Consultant Services Manual* for details.

Methods for Contract Services

Professional and technical service contracts are written for either a specific project or for "on-call" basis. There is no dollar limit for specific contracts, but there is a maximum of \$500,000 for on-call contracts. On-call contracts are used where scope of work cannot be well defined. Work is done under task orders when specific parts of the work can be defined sufficiently to estimate costs.

Contractors License

Appropriate and valid professional California license is required for the type of work being contracted.

Consultant Selection Methods

There are two consultant selection methods used when contracting out for consultant services. These two methods are the "one step" and the "two step".

"One Step" Method

The "One Step" process is appropriate for projects where the consultant is given little or no flexibility as to how the work is to be performed. The process consists of six phases as follows:

- Project Initiation
- Requests for Qualifications (RFQ)
- Final Selection
- Contract Negotiations
- Contract Award
- Contract Administration (monitoring)

"Two Step" Method

The "Two Step" selection process is appropriate for projects that could be approached in more than one way. On such a project, it is necessary that the approach to the project be carefully considered and that the consultants are invited to describe their proposed project methodologies. This is a rarely used process; when used the process consists of seven phases as follows:

- Project Initiation
- Request for Qualifications (RFQ)
- Request for Proposal (RFP)
- Final Selection
- Contract Negotiations
- Contract Award
- Contract Administration (monitoring)

Guidelines and Procedures

For processing a contract for consultant services, the guidelines and procedures of the *A&E Consultant Services Manual* should be followed. In addition, the *Service Contracts Manual* contains procedures for preparing contracts, and the *Service Contracts Managers Manual* contains procedures for administering contracts.

Consultant Oversight

For guidelines on the oversight of work by others on state facilities to ensure that the work conforms to Caltrans standards and practices refer to the *Guidelines for Consultant Oversight*.

SECTION 9 - Signatures on Technical Reports

Business and Professions Code

Although this section deals specifically with civil engineering requirements, reports prepared by other professionals should comply with any similar requirements specified by that profession.

Section 6735 of the Business and Professions Code requires that all civil engineering reports be prepared by either a registered civil engineer (RCE) or a subordinate under the direction of the RCE, and that all reports be signed by the RCE as an indication of responsibility for the reports. Civil engineering reports should also bear the RCE's seal or stamp – with registration number and expiration date of the registrant's certificate.

Consultants and Local Entities

The procedures that follow also apply to final engineering reports developed by consultants and local entities. A Caltrans RCE would not normally sign and seal a report prepared by others. The local agency engineer or consultant in "responsible charge" would normally sign and seal the report.

Responsible Charge

As used in the Professional Engineers Act, the term "responsible charge" refers to both the span or degree of control an RCE is required to maintain when exercising independent control and direction of civil engineering work, as well as to the specific technical engineering decisions that may only be made by an RCE.

Span of Control

The span of control necessary to be in "responsible charge" requires that the RCE:

- Personally makes all engineering decisions or at least reviews and approves proposed decisions prior to their implementation, whenever engineering decisions are made that could affect life, health, property, or public welfare. In making engineering decisions, the RCE must be physically present or, through the use of communication devices, be available in a reasonable period of time.
- Judges the qualifications of technical specialists and the validity and applicability of their recommendations before such recommendations are incorporated into technical engineering reports.

Engineering Decisions

The term "responsible charge" relates to engineering decisions within the purview of the Professional Engineers Act and does not refer to management control in a hierarchy of registered civil engineers, except where an individual in the hierarchy exercises independent engineering judgment – which would consequently constitute the exercise of "responsible charge." Engineering decisions which must be made by – and are the responsibility of – the engineer in "responsible charge," include permanent or temporary work that would create a hazard to life, health, property, or public welfare. Such decisions may include, but are not limited to, the following:

- The selection of engineering alternatives to be investigated, as well as the comparison of alternatives for engineering works.
- The selection or development of design standards or methods, and materials.
- The selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing.
- The review and evaluation of manufacturing, fabrication, or construction methods or controls to be used, including the evaluation of test results, materials, and workmanship insofar as they affect the character and integrity of the completed work.
- The development and control of operating and maintenance procedures.

Evaluating "Responsible Charge"

As a test to evaluate whether an RCE is in "responsible charge," the following must be considered:

- The RCE who signs technical engineering reports must be capable of answering questions asked by equally qualified engineers. These questions would be relevant to the engineering decisions made during the individual's participation in the project and in sufficient detail to leave little question as to the RCE's technical knowledge of the work performed. Appropriate questions could address the criteria for design, methods of analysis, methods of construction, the basis for selection of materials, economics of alternative solutions and environmental considerations.
- The RCE in "responsible charge" should be able to clearly define the span of control and how it is exercised within the organization to demonstrate that he or she is accountable within the controls stated above.

Reports that Require Professional Engineering Conformance

The following final technical reports must bear the signature, stamp or seal, registration number, and registration certificate expiration date of the RCE most directly in "responsible charge" – or where applicable – bear similar data required of other registered or certified professional working on the report.

- Project Study Report (PSR)
- Facility PSR
- Noise Barrier Scope Summary Report (NBSSR)
- Project Scope Summary Report (PSSR)
- PSSR-Seismic Retrofit
- Draft Project Report (DPR)
- Project Report (PR)
- PR-Safety Roadside Rest Area
- Combined PSR/PR
- Permit Engineering Evaluation Report (PEER)
- Drainage Report
- Materials Report
- Structural Section Recommendation Report
- Fact Sheet - district prepares request for exceptions from mandatory and advisory design standards (signature and stamp or seal applies to the engineer in "responsible charge")
- Preliminary Report (prepared by Division of Structures)
- Structures Site Data Submittals (bridge, retaining walls, noise barriers)
- Bridge Inspection Report (prepared by Division of Structures)
- Hydraulic Report (prepared by Division of Structures)
- Geotechnical Report (can include pre-remedial report concerning hazardous and toxic materials sites)
- Reports issued by the Office of Materials Engineering and Testing Services of the Engineering Service Center (applies to reports that go beyond the tabulation of test data: e.g., reports making recommendations and conclusions)

Application Procedures

Only one registrant's stamp or seal, and number with signature, are normally necessary on the final civil engineering reports listed above. That stamp or seal and number with signature should be of the appropriate lowest classification of RCE in "responsible charge" for developing the final engineering report. This registrant's stamp or seal and number with signature need only appear on the original title sheet of most reports; however, for the PSR, DPR, and PR, the registrant's stamp or seal and number with signature can be placed on a separate sheet that must be a part of the report. This

separate sheet must state that the RCE is attesting to the technical information contained therein and the engineering data upon which recommendations, conclusions, and decisions were based.

Coordination with Environmental Documents

Environmental documents serve as public disclosure documents, explaining the effects of a proposed project on the environment; they do not require the seal or signature of an RCE. However, technical civil engineering reports that will be used in, or which will control the detailed design and construction of, a proposed project must be signed by an RCE.